

# **EXHIBIT A**

persico corrected Jan08.ST25.txt  
SEQUENCE LISTING

<110> Minchiotti, Gabriella  
Persico, Maria  
Parisi, Silvia  
<120> METHOD FOR PROMOTING DIFFERENTIATION OF STAMINAL CELL  
<130> AE 89363  
<140> US 10/550,498  
<141> 2005-09-20  
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<170> PatentIn version 3.3  
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Met Gly Tyr Phe Ser Ser Ser Val Val Leu Leu Val Ala Ile Ser Ser  
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Ala Phe Glu Phe Gly Pro Val Ala Gly Arg Asp Leu Ala Ile Arg Asp  
20 25 30

Asn Ser Ile Trp Asp Gln Lys Glu Pro Ala Val Arg Asp Arg Ser Phe  
35 40 45

Gln Phe Val Pro Ser Val Gly Ile Gln Asn Ser Lys Ser Leu Asn Lys  
50 55 60

Thr Cys Cys Leu Asn Gly Gly Thr Cys Ile Leu Gly Ser Phe Cys Ala  
65 70 75 80

Cys Pro Pro Ser Phe Tyr Gly Arg Asn Cys Glu His Asp Val Arg Lys  
85 90 95

Glu His Cys Gly Ser Ile Leu His Gly Thr Trp Leu Pro Lys Lys Cys  
100 105 110

Ser Leu Cys Arg Cys Trp His Gly Gln Leu His Cys Leu Pro Gln Thr  
115 120 125

Phe Leu Pro Gly Cys Asp Gly His Val Met Asp Gln Asp Leu Lys Ala  
130 135 140

Ser Arg Thr Pro Cys Gln Thr Pro Ser Val Thr Thr Thr Phe Met Leu  
145 150 155 160

Ala Gly Ala Cys Leu Phe Leu Asp Met Lys Val  
165 170

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Ala Phe Glu Phe Gly Pro Val Ala Gly Arg Asp Leu Ala Ile Arg Asp  
20 25 30

Asn Ser Ile Trp Asp Gln Lys Glu Pro Ala Val Arg Asp Arg Ser Phe  
35 40 45

Gln Phe Val Pro Ser Val Gly Ile Gln Asn Ser Lys Ser Leu Asn Lys  
50 55 60

Thr Cys Cys Leu Asn Gly Gly Thr Cys Ile Leu Gly Ser Phe Cys Ala  
65 70 75 80

Cys Pro Pro Ser Phe Tyr Gly Arg Asn Cys Glu His Asp Val Arg Lys  
85 90 95

Glu His Cys Gly Ser Ile Leu His Gly Thr Trp Leu Pro Lys Lys Cys  
100 105 110

Ser Leu Cys Arg Cys Trp His Gly Gln Leu His Cys Leu Pro Gln Thr  
115 120 125

Phe Leu Pro Gly Cys Asp Gly His Val Met Asp Gln Asp Leu Lys Ala  
130 135 140

Ser Arg Thr Pro Cys Gln Thr Pro Ser Val Thr Thr  
145 150 155

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<212> PRT  
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Ala Phe Glu Phe Gly Pro Val Ala Gly Arg Asp Leu Ala Ile Arg Asp  
20 25 30

Asn Ser Ile Trp Asp Gln Lys Glu Pro Ala Val Arg Asp Arg Ser Phe  
35 40 45

Gln Phe Val Pro Ser Val Gly Ile Gln Asn Ser Lys Ser Leu Asn Lys  
50 55 60

Thr Cys Cys Leu Asn Gly Gly Thr Cys Ile Leu Gly Ser Phe Cys Ala  
65 70 75 80

Cys Pro Pro Ser Phe Tyr Gly Arg Asn Cys Glu His Asp Val Arg Lys  
85 90 95

Glu His Cys Gly Ser Ile Leu His Gly Thr Trp Leu Pro Lys Lys Cys  
100 105 110

Ser Leu Cys Arg Cys Trp His Gly Gln Leu His Cys Leu Pro Gln Thr  
115 120 125

Phe Leu Pro Gly Cys Asp Gly His Val Met Asp Gln Asp Leu Lys Ala  
130 135 140

Ser Arg Thr Pro Cys Gln Thr Pro Ser Val Thr Thr Thr Asn Ser Gly  
145 150 155 160

His His His His His  
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Ala Phe Glu Phe Gly Pro Val Ala Gly Ser Val Gly Ile Gln Asn Ser  
20 25 30

Lys Ser Leu Asn Lys Thr Cys Cys Leu Ash Gly Gly Thr Cys Ile Leu  
35 40 45

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Gly Ser Phe Cys Ala Cys Pro Pro Ser Phe Tyr Gly Arg Asn Cys Glu  
50 55 60

His Asp Val Arg Lys Glu His Cys Gly Ser Ile Leu His Gly Thr Trp  
65 70 75 80

Leu Pro Lys Lys Cys Ser Leu Cys Arg Cys Trp His Gly Gln Leu His  
85 90 95

Cys Leu Pro Gln Thr Phe Leu Pro Gly Cys Asp Gly His Val Met Asp  
100 105 110

Gln Asp Leu Lys Ala Ser Arg Thr Pro Cys Gln Thr Pro Ser Val Thr  
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Thr

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Ala Phe Glu Phe Gly Pro Val Ala Gly Ser Val Gly Ile Gln Asn Ser  
20 25 30

Lys Ser Leu Asn Lys Thr Cys Cys Leu Asn Gly Gly Thr Cys Ile Leu  
35 40 45

Gly Ser Phe Cys Ala Cys Pro Pro Ser Phe Tyr Gly Arg Asn Cys Glu  
50 55 60

His Asp Val Arg Lys Glu His Cys Gly Ser Ile Leu His Gly Thr Trp  
65 70 75 80

Leu Pro Lys Lys Cys Ser Leu Cys Arg Cys Trp His Gly Gln Leu His  
85 90 95

Cys Leu Pro Gln Thr Phe Leu Pro Gly Cys Asp Gly His Val Met Asp  
100 105 110

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Gln Asp Leu Lys Ala Ser Arg Thr Pro Cys Gln Thr Pro Ser Val Thr  
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Thr Thr Asn Ser Gly His His His His His His His  
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Ala Phe Glu Phe Gly Pro Val Ala Gly Ser Val Gly Ile Gln Asn Ser  
20 25 30

Lys Ser Leu Asn Lys Thr Cys Cys Leu Asn Gly Gly Thr Cys Ile Leu  
35 40 45

Gly Ser Phe Cys Ala Cys Pro Pro Ser Phe Tyr Gly Arg Asn Cys Glu  
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His Asp Val Arg Lys  
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Ala Phe Glu Phe Gly Pro Val Ala Gly Arg Asp Leu Ala Ile Arg Asp  
20 25 30

Asn Ser Ile Trp Asp Gln Lys Glu Pro Ala Val Arg Asp Arg Ser Phe  
35 40 45

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Gln Phe Val Pro Ser Val Gly Ile Gln Asn Ser Lys Ser Leu Asn Lys  
50 55 60

Thr Cys Cys Leu Asn Gly Gly Thr Cys Ile Leu Gly Ser Phe Cys Ala  
65 70 75 80

Cys Pro Pro Ser Phe Tyr Gly Arg Asn Cys Glu His Asp Val Arg Lys  
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Met Ala Ile Ser Lys Val Phe Glu Leu Gly Leu Val Ala Gly Leu Gly  
20 25 30

His Gln Glu Phe Ala Arg Pro Ser Arg Gly Tyr Leu Ala Phe Arg Asp  
35 40 45

Asp Ser Ile Trp Pro Gln Glu Glu Pro Ala Ile Arg Pro Arg Ser Ser  
50 55 60

Gln Arg Val Pro Pro Met Gly Ile Gln His Ser Lys Glu Leu Asn Arg  
65 70 75 80

Thr Cys Cys Leu Asn Gly Gly Thr Cys Met Leu Gly Ser Phe Cys Ala  
85 90 95

Cys Pro Pro Ser Phe Tyr Gly Arg Asn Cys Glu His Asp Val Arg Lys  
100 105 110

Glu Asn Cys Gly Ser Val Pro His Asp Thr Trp Leu Pro Lys Lys Cys  
115 120 125

Ser Leu Cys Lys Cys Trp His Gly Gln Leu Arg Cys Phe Pro Gln Ala  
130 135 140

Phe Leu Pro Gly Cys Asp Gly Leu Val Met Asp Glu His Leu Val Ala  
145 150 155 160

Ser Arg Thr Pro Glu Leu Pro Pro Ser Ala Arg Thr Thr Thr Phe Met  
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165                    170                    175

Leu Val Gly Ala Cys Leu Phe Leu Asp Met Lys Val  
180                    185

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Met Ala Ile Ser Lys Val Phe Glu Leu Gly Leu Val Ala Gly Leu Gly  
20                      25                        30

His Gln Glu Phe Ala Arg Pro Ser Arg Gly Tyr Leu Ala Phe Arg Asp  
35                      40                        45

Asp Ser Ile Trp Pro Gln Glu Glu Pro Ala Ile Arg Pro Arg Ser Ser  
50                      55                        60

Gln Arg Val Pro Pro Met Gly Ile Gln His Ser Lys Glu Leu Asn Arg  
65                      70                        75                        80

Thr Cys Cys Leu Asn Gly Gly Thr Cys Met Leu Gly Ser Phe Cys Ala  
85                      90                        95

Cys Pro Pro Ser Phe Tyr Gly Arg Asn Cys Glu His Asp Val Arg Lys  
100                     105                        110

Glu Asn Cys Gly Ser Val Pro His Asp Thr Trp Leu Pro Lys Lys Cys  
115                     120                        125

Ser Leu Cys Lys Cys Trp His Gly Gln Leu Arg Cys Phe Pro Gln Ala  
130                     135                        140

Phe Leu Pro Gly Cys Asp Gly Leu Val Met Asp Glu His Leu Val Ala  
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Ser Arg Thr Pro Glu Leu Pro Pro Ser Ala Arg Thr Thr  
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Met Ala Ile Ser Lys Val Phe Glu Leu Gly Leu Val Ala Gly Leu Gly  
20 25 30

His Gln Glu Phe Ala Arg Pro Ser Arg Gly Tyr Leu Ala Phe Arg Asp  
35 40 45

Asp Ser Ile Trp Pro Gln Glu Glu Pro Ala Ile Arg Pro Arg Ser Ser  
50 55 60

Gln Arg Val Pro Pro Met Gly Ile Gln His Ser Lys Glu Leu Asn Arg  
65 70 75 80

Thr Cys Cys Leu Asn Gly Gly Thr Cys Met Leu Gly Ser Phe Cys Ala  
85 90 95

Cys Pro Pro Ser Phe Tyr Gly Arg Asn Cys Glu His Asp Val Arg Lys  
100 105 110

Glu Asn Cys Gly Ser Val Pro His Asp Thr Trp Leu Pro Lys Lys Cys  
115 120 125

Ser Leu Cys Lys Cys Trp His Gly Gln Leu Arg Cys Phe Pro Gln Ala  
130 135 140

Phe Leu Pro Gly Cys Asp Gly Leu Val Met Asp Glu His Leu Val Ala  
145 150 155 160

Ser Arg Thr Pro Glu Leu Pro Pro Ser Ala Arg Thr Thr Thr Asn Ser  
165 170 175

Gly His His His His His  
180